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Reports and Commentaries

Ana O Keke and Ana More Mata Puku – The *neru* caves of Easter Island

Hartwig-E. Steiner

The ethnology of Easter Island includes a kind of vestal ritual consisting of the “whitening” of selected young people called neru, both female and male. The two places that played a major role in this ritual were collectively called Ana Hue Neru: the cave Ana O Keke for the seclusion of young girls and the cave Ana More Mata Puku for the seclusion of young boys. Both caves are located on a precipice of Poike, at the northeast part of the island. According to oral tradition, the neru were kept in seclusion, in the shadow of a cave, for the time required to reach a fair complexion. The only people allowed to visit them were their fathers who brought them food. The importance of the neru ritual is reflected by numerous petroglyphs decorating these caves. This paper presents the detailed description and photographic record of both neru caves made by the author during a series of visits.

La etnología de Isla de Pascua incluye un tipo de ritual de vestales que se consistió en “blanqueamiento” de los jóvenes elegidos llamados neru, niñas y niños. Los lugares que tenían un papel importante para este ritual se referían como Ana Hue Neru: la cueva Ana O Keke para reclusión de las niñas y la cueva Ana More Mata Puku para reclusión de los niños. Ambas cuevas se ubican en los precipicios del Poike, en la parte nororiental de la isla. Según la tradición oral, los neru vivían en reclusión, en la sombra de la cueva, por el tiempo requerido para llegar a una tez clara. Las únicas personas que pudieran visitarles fueron sus padres trayéndoles comida. La importancia del ritual de los neru está reflejada en los numerosos petrograbados que decoran las cuevas. Este reporte presenta una descripción detallada y la documentación fotográfica de ambas cuevas de los neru producida por el autor durante una serie de visitas.

Introduction

Easter Island (Rapa Nui) is located in the South Pacific, forming the eastern vertex of the Polynesian triangle, and is considered one of the most isolated inhabited places of the world. Rapa Nui is world-famous for its rich archeological heritage, including monumental statues (*moai*) and numerous rock art sites. The Parque Nacional Rapa Nui, created in 1935, stimulated much international research, and in 1995 Easter Island was inscribed on the list of World Heritage Monuments established by UNESCO. Over 20,000 archaeological sites were documented in an island-wide survey (Vargas et al. 2006:45). Since 1967, travel to the island has been greatly improved with the construction of an airport, which has contributed considerably to the development of tourism. The mysterious and romantic image of the island created by the popular media has resulted in an ever-increasing flow of tourists who want to experience the open-air museum of Rapa Nui themselves. This increase of interest towards the island culture is positive, yet the sheer number of visitors creates much stress on archaeological sites, endangering the fragile cultural

heritage. Under these circumstances, it becomes timely and important to perform thorough documentation of Easter Island's sites.

Easter Island, being volcanic in origin, contains a huge number of caves, which had an important role for the ancient society. In times of peace, they may have been predominantly used for rituals. In war times, they were indispensable as hiding places. During the history of the island, family caves, known only to a limited number of people in every lineage, were used to store treasured items; they were also used to offer the final resting place for the people who were not buried in an *ahu*. To date, more than 1,000 such caves are known on the island (J. Lloret i Prieto, pers. comm., 2008). Several ritual caves came to a significant prominence, which is confirmed by the rich rock art adorning them. These include Ana Nga Heu with its numerous carvings of Make-Make; Ana Kai Tangata with the famous paintings of sooty terns (*manutara*); the caves related to the birdman cult on Motu Nui, and finally, the *neru* caves Ana More Mata Puku and Ana O Keke. This paper is focused on the two *neru* caves located on the Poike Peninsula, presenting an updated and

concise synthesis of research reports on Easter Island caves published in German (Steiner 2008, 2012, 2014). It is believed that English publication of this material will reach wider readership, helping to trigger more dedicated research projects and to protect these unique monuments of Rapanui culture.

Ethnographic Record of *Neru* Rites

It is unclear whether the cult of white virgins appeared at an early time in Easter Island's history, or if it was a tradition introduced by a social group such as the *hanau eepe*, who, according to lore, lived on Poike. The main visual property of the cult participants, the *neru*, was their fair complexion, seen as a privilege among Pacific peoples, including Kiribati in Micronesia and the Marquesas in Polynesia. The first European visitors to Rapa Nui mentioned seeing completely white people on the shore. Carl Friedrich Behrens, who accompanied Roggeveen in 1722, describes the islanders: "As for their complexion they are brownish, about the hue of a Spaniard, yet one finds some among them of a darker shade, and others quite white" (Heyerdahl 1961:46), further adding: "One amongst these was an entirely white man, who was wearing white chocks of wood in his ears as large as one's fist, and bore a very devout appearance, so that we took him to be an idol priest" (Heyerdahl 1961:46).

Don Felipe González visited the island in 1770, and mentioned that the islanders looked "more European than American." De Langle, accompanying La Pérouse in 1786, noted that the islanders were only slightly different in skin tone from Europeans. Von Chamisso observed during his 1815-1818 circumnavigation that "some youth were different by much more fair skin color" (Chamisso 1896:401). The first missionary, Eugène Eyraud, who lived on Rapa Nui for nine months in 1864, wrote: "Their complexion, although a little copper-colored, does not differ much from the hue of the European, and a great number are even completely white" (Heyerdahl 1961:68).

The fair complexion as a symbol of status was also noted by Routledge (1919:235): "In connection with some or all of the *kaunga* [sic, *kainga*] there was a house where the party remained indoors for a long time previous to the dances, in order to "get their complexions good", a touch which shows that a white skin was admired." Métraux (1940:104) provides more detail:

"Legends tell of girls who were kept in seclusion (*huru*) inside huts so that they might acquire a fair complexion. When they appeared in public later, they aroused great admiration for the whiteness of their skin. According to one popular Easter Island

tale, the girl in seclusion was daily washed (*hopu*), deloused (*aruke kutu*), combed (*harihari*), stained (*akui*) with turmeric and red earth, and her clitoris was stretched (*haro matatuu*) so that it would be long and hanging".

This description suggests that *neru* rites may have included sexual initiation rites. Englert (1948:298) also addressed the question of light-colored skin as a status symbol:

"Era un orgullo para los padres tener hijos de color blanco, conservado a fuerza del sacrificio de una tediosa permanencia en casa sin exponerse al sol. Por eso se daba mucha importancia a la presentación de tales hijos."

[It was a pride for the parents to have children of white color, preserved by the sacrifice of a tedious seclusion at home without exposure to the sun. Thus, much importance was given to the presentation [ceremony] of such children].

To achieve a much desired fair complexion, considerable deprivations had to be made. The "bleaching" required the avoidance of direct sunlight and preferably ambient light as well. The lore of Easter Island preserves two recipes to achieve this: seclusion in the *koro* houses and confinement in the caves of the *neru*. The first strategy was documented by Métraux (1940:348-9):

"In connection with the *koro* is always mentioned a big house, also called *koro*, where young people spent their time playing various games ... Tradition has preserved descriptions of *koro* houses which were several hundred feet long and more than 20 feet high ... Tepano [Métraux's informant] said that *koro* houses were intended for young people, both boys and girls, who resided in them for months, generously provided with all sorts of delicacies, but tales seem to indicate that adults also could enjoy the careless life of the *koro* houses. Certain tapus seem to have been enforced on the *koro*, and definite rules were observed in them."

Englert provides the following information:

"De entre niños de ambos sexos eran seleccionados, en su tierna infancia, los mas hermosos para ser "*poki huru hare*", lo que quería decir niños destinados a guardar casa". No les era permitido salir para jugar y correr con otros niños al aire libre, para que sus cuerpos no perdieran, expuestos al sol, su color blanco. Tenían que permanecer casi siempre en las

oscuras casas, y para salir y respirar aire fresco se les marcaba con piedras un limite estrecho dentro del cual podrían hacer su paseo. Llevaban una vida de niñez ciertamente monótona y triste, victimas de orgullo racial” (Englert 1948:203-4).

[From the children of both genders they have chosen, in their tender infancy, the most beautiful to be *poki huru hare*, that means to say “children destined to be secluded in a house”. They were forbidden to come outside for playing and running with other children in the open, so that their bodies will not lose, exposed to the sun, their white color. They have to stay almost forever in the dark houses, and for going out and breathe the fresh air, they had a narrow area marked with stones, inside which they could make their walk. They had a completely monotonous and sad childhood, [being] the victims of racial pride].

The first visitors to Easter Island, though mentioning completely white people on the shore, did not provide information about the “bleaching caves”. The first brief mention comes from the 1911 Chilean Expedition directed by Dr. Walter Knoche (1925:191), who wrote about “a kind of a cult of vestals on this remote island, according to which the fathers confined their daughters for [their] entire life or till the moment of their marriage.” The Franco-Belgian Expedition managed to record a song about *neru* (Métraux 1940:104):

Ka huru koe, neru e, i te ana.
Tautau ipu kiea o nga neru.
Tuai era ka huru koe, neru e.

A te manava he mate,
Ka huru koe, neru e,
Ka huru kataia ritorito.

You are secluded, O *neru*, in the cave.
Hanging is the gourd with red ocher of the *neru*.
You have been secluded for a long time, O *neru*.

I am in love,
You are secluded, O *neru*,
Being secluded you have become white.

Other songs about *neru* were published by Englert (1948:178), Maziere (1967:115) and Campbell (1971:286). Yet it was Padre Sebastián Englert who for the first time described in detail the “bleaching caves” for seclusion of the *neru*, Ana O Keke for girls and Ana More Mata Puku for boys (Englert 1948:232-236). Concerning the last years of the *neru* ceremonies, Englert writes (1948:178):

“La última mujer conocida que en su niñez había sido neru, era la abuela paterna de los Pakarati, Te Oho a neru, que murió muy anciana por el año 1915. Ella se casó antes de 1850; de modo que la institución de los neru debe haber dejado de existir decenios antes de la llegada de los primeros misioneros.”

[The final woman who was known to be neru in her childhood was the paternal grandmother of the Pakarati [family], Te Oho a neru, who died at a very old age in 1915. She married before 1850, such that the institution of the neru should have ceased to exist decades before the arrival of the first missionaries].

Based on the information collected by Englert, it remains unclear if *neru* rites were a separate religious institution or they were a special case of *poki huru hare*.

Englert’s dedicated work with the islanders resulted in a monumental book of Easter Island lore. In it, one can find the narrative of Arturo Teao about the *neru* rites (Englert 2006:164). He mentions that the children were brought to Ana Hue Neru caves at the age of seven. Nobody, except for the father, could go down to the caves. The father brought the food: sugarcane, *pipi* and *pure* shells. When a *neru* died, his/her parents chanted, weeping a song (Englert 2006:164-165):

“Ka huru koe, e neru e,
Ka huru, ka hakarito koe, [e] neru e,
I te ana tautau ipu ki’ea
O te nga neru tuai;
Koro hora, ka ea ki runga,
I te tonga, ka topa ki raro,
Ka huru, ka ritorito koe, e neru e!”

“Remain [in the cave], oh *neru*,
Remain [in the cave] to bleach your skin, oh *neru*,
In the cave where the calabashes with *ki’ea* are hanging,
Of the ancient *neru*;
In summer you can go up,
In winter you should go down,
Remain [in the cave] to have white skin, oh *neru*!”

The data about the *neru* rites collected at a later date received a number of fanciful additions, which may reflect growing fantasy of the informants or a natural tendency of introducing new aspects to the phenomenon that was forgotten to a considerable degree. For example, Campbell’s information about the activities of secluded children includes many details that are absent from the reports of previous scholars:

“La principal de estas cavernas era la llamada Ana-o-keke. Allí precisamente, [...] se dedicaban a aprender cantos y poemas antiguos, *patautau*, a

hacer los graciosos juegos de cuerdas, *kai-kai*, y a hermostearse el rostro y el cuerpo. En las tradiciones se establece que había una especie de iniciación sexual a cargo de mujeres mayores, que les enseñaban el arte de amor y hasta el masaje de sus órganos sexuales, *makitu 'u*, para prepararlas para las funciones eróticas.”

“The principal of these caves was the one named Ana-o-keke. Precisely there ... [the *neru*] studied ancient songs and poems, *patautau*, [the art] to make string figures, *kai-kai*, and to embellish the face and the body. In the traditions it was mentioned that there was a kind of sexual initiation performed by older women, which showed to them [the *neru*] the art of love and even massaged their sexual organs, *makitu 'u*, to prepare them for the erotic purposes” (Campbell 1999:94).

It is difficult to say which of these details refer to *neru* rites, and which are recent additions. Yet the suggested adolescent age of the children secluded to attain a fair complexion, multiple lines of evidence supporting the importance of the ceremonies when they were presented to the society, and information about the stimulation of sexual organs strongly suggest that *neru* rites might have coincided with (or were included as a part of) sexual initiation rites.

The Poike Peninsula and Ana Hue Neru

Both caves connected with *neru* rites are located on Poike, a clearly marked peninsula on the east side of Easter Island, dominated by the volcanic cone of Puakatiki (370m in elevation). Three minor side hillocks, Maunga Vai a Heva, Maunga Tea Tea, and Maunga Parehe appearing in a line to the north of the Puakatiki summit were used by the Spaniards in 1770 expedition to plant three crosses. The peninsula is well-protected on three sides by high cliffs rising from the sea. To the west lies the “Poike Ditch” that has prominent cultural and historic importance, called “Ko te Umu o te Hanau Eepe” – the earth oven of the *hanau eepe*.

At present, Poike is a dry hot steppe with huge erosive patches and relatively recently-planted groves of eucalyptus trees with the hope of stopping the expanding erosion. During first settlement, the situation was completely different. A ¹⁴C date of AD 386 was obtained from one of the charcoal samples collected at Poike (Fonck 1974:86), showing possible early human occupation on this side of the island. The soil and pollen analysis suggest that in those times Poike had a lush forest of palm trees covering the entire peninsula (Bork 2006:86). In the past, it definitely was one of the best areas for agriculture (Brown 1924:64,

Pflücke 1990:112). However, intensive agricultural activity destroyed the forests and provoked soil erosion, transforming Poike into a steppe and making it far less attractive for settlement (Bork 2006:91). In an archaeological survey performed by the University of Chile from 1976 to 2006 (Vargas et al. 2006) the *neru* caves correspond to quadrant 25, “Ana O Keke”.

The archaeological sites recorded at Poike during 1988 and 1990 (Vargas et al. 1990) are numerous and some of them are unique, such as Vai a Heva, a carving over a water catchment basin, an isolated rock profusely covered with petroglyphs (Ko te papa ui hetu'u, “the flat lava flow from which the stars were observed”), and the two *neru* caves. A large stone block located close to Ana O Keke, with symmetrical geometric motifs, may have a special function related to these caves. The nearby red earth quarry, Te Tiamo, also might have a part in the *neru* ritual by providing cave dwellers with red pigments, which are mentioned in the *neru* songs. One can speculate that, due to a comfortable location, Ana O Keke was likely known and ritually used from the time of the initial settlement of Poike.

Ana O Keke Cave

The entrance to Ana O Keke is located near the top of a hundred-meter high cliff on the north side of Poike (Figure 1). On the upper side of the precipice, above Ana O Keke, erosion has removed a large area of terrain; without the protection of grass and roots, erosion progresses as the soil is exposed to wind and rains. From a small rocky plateau above the sea, one turns left and follows a small path along the precipice. After clearing a rocky drop about two meters high, the path ends at the entrance of Ana O Keke.

The cave itself is a lava tube several hundreds of meters long, with flow direction originally coming from Puakatiki volcano towards the north coast. The cave is generally ascending, with the entrance located about 40m below the highest point of the cave. Published sources provide different numbers for the length of the cave. Englert (1948:207) mentions the length of about 380m that may correspond to the length of the main passage. Lloret i Prieto & Ubach i Tarrés (1996) documented the cave to the depth of 274m, although their study was interrupted due to technical reasons and a limited time frame. Similar cave length measurements of 440m (Gautier & Carlier 1987:46) and 442m (Ciszewski et al. 2010:316) were published by later research teams. These included the length of the main passage plus the passable part of a small secondary passage branching out at the point located roughly at one third of the length of the cave. The Polish speleological team published an accurate map of Ana O Keke in its report.

Figure 1. View from Poike cliffs showing entrances to Ana Hue Neru caves.

According to Englert, the word *keke* means “inclinarse el sol (en las primeras horas después de mediodía)” [inclination of the sun (in the first hours after the midday)] (Englert 1948:460). Following this, Heyerdahl (1977:81) translates Ana O Keke as “Cave of the Sun’s Inclination.” This interpretation may have a symbolical meaning, alluding that the sun “came down” and lost its tanning powers for those secluded in the cave. Surprisingly, neither Routledge nor the Franco-Belgian Expedition lead by Métraux and Lavachery reported anything about Ana O Keke, despite their sojourns on the island that lasted for months. It is especially surprising that Lavachery (1939), who focused his research on petroglyphs, says nothing about the Ana O Keke carvings. Perhaps, at that time, the cave was either forgotten by the islanders or it was considered a strict taboo.

Padre Sebastián Englert was the first to mention and describe Ana O Keke in detail (Englert 1948:232-233):

“Su formación geológica es en algunas pocas partes de basalto, y en otras de andesito con feldespato. En varias partes llama la atención el aspecto de bóveda casi perfecta. Existen rastros de la obra de mano de antiguos isleños, porque en las paredes del interior,

que están formadas de andesito muy quebradizo, quedan los rastros de las barretas de palo duro, los “*huki*”. También en el fondo de la cueva ha quedado en la pared la forma puntiaguda de los “*huki*” con que han tratado de abrir paso hacia el interior de la montaña. Es obvio que se trata de una cueva natural pero que en gran parte ha sido alargada, abovedada y alisada por el hombre.

La altura de la cueva difiere mucho. Los primeros cinco metros tienen 1 metro 30 de altura. Mas al interior hay partes que tienen 1 m. 80 y otras que son muy bajas. Hay un trecho de unos 5 metros de largo que es muy angosto y que no tiene más de 30 centímetro de altura, de modo que es necesario arrastrarse por el suelo para poder avanzar. Es precisamente una de las partes con lagunas de agua. En general, el ancho de la cueva es de 1,80 m. a 2 m.

Se nota en toda la extensión de la cueva una constante y abundante filtración de agua. Las paredes están cubiertas de gotas de agua y en las partes interiores, en que el suelo es de basalto, quedan lagunas de agua fresca, de modo que los antiguos que vivían por esa región podían proveerse de agua potable en abundancia.”

[Its geological formation is in some few parts of basalt, and in the others of andesite with feldspar. In different parts it has a remarkably well-formed arched passage. There are traces of human work by the ancient islanders, as interior walls formed by very fragile andesite keep the traces of the hard sticks, the *huki*. Also at the end of the cave there is a wall with sharp traces of the *huki*, with which [the islanders] tried to open the way towards the interior or the mountain. It is obvious that it is a natural cave that in a large extent was enlarged, vaulted, and smoothed by a man.

The height of the cave varies. The first five meters are 1.30 m in height. Towards the interior there are parts 1.80 m [tall] and there are others that are very low. There is a passage some 5 meters long that is very narrow and does not have more than 30 centimeters of height, in the way that it is necessary to crawl to move forward. It is precisely one of the parts with pools of water. In general, the width of the cave is from 1.80 m to 2 m.

It is notable that for the entire extent of the cave there is constant and abundant water filtration. The walls are covered with water drops and in the parts of the interior, where the floor is of basalt, there remain pools of fresh water, so that the ancients that lived in this place could have had an abundant access to drinkable water.]

This detailed description was – and still is – the base of all reports on Ana O Keke published up to the present day. Englert was also the first to publish a sketch of the entire petroglyph panel (1948:234-235).

In 1955, Englert took Heyerdahl to Ana O Keke, resulting in an emotional description of the cave in his book, *Aku-Aku* (Heyerdahl 1977:62): “Father Sebastian pointed to a small hole in the back wall and said that if we crawled in there we could get four hundred yards farther into the rock. But it was the worst trip he had ever made, and he would never do it again”. Castex (1973:99-100) describes his visit to Ana O Keke even more dramatically, painting the cave as dangerous and full of calamities. Campbell’s description is fanciful in part – for example, he proposes that a graceful hand made of *toromiro* wood collected by the Forsters (currently preserved in the British Museum) comes from Ana O Keke, speculating that the long nails of the carving suggest it to be the hand of a *neru* (Campbell 1999:101). What is known for certain is that Forster obtained this artifact from another participant of Cook’s expedition, the Tahitian Maheine, without any additional details documented in the published expedition narratives. French speleologists Gautier and Carlier explored Ana O Keke to its end in 1979 (1987:46). Catalan speleologists Lloret i Prieto and Ubach i Tarrés studied the cave in

1992. Polish speleologists mapped the entire cave in 2008 (Ciszewski et al. 2010:320-327).

The author visited the cave three times: on January 27, 1975 (accompanied by Dionisio Teao Atan and his son Cristián), from January 25 – February 5, 2002 (documenting and measuring petroglyphs and exploring the cave to the “siphon point”), and from January 29 – February 3, 2007 (taking measurements of the enclosure behind the entrance and its narrow passages and also finalizing the documentation of the petroglyphs). This paper presents photographic and topographic documentation of the cave made by the author (Figure 2). As all visits were made in the same season of the year, it became notable that water filtration in the cave increased, as a consequence, producing higher humidity levels inside Ana O Keke between the visits of 2002 and 2007. Due to this, the interior at the entrance area became notably greener due to the increased growth of microscopic algae.

The entrance to the cave is 70cm high, forcing the visitor to crawl into it. The lava tunnel widens immediately, reaching 130cm in height and 230cm wide, offering enough space for crouching or squatting movement. The cross-section of the entrance area is roughly elliptic. The right side of the tunnel, well-illuminated by natural light, has an elaborately carved panel measuring approximately 5m by 1m, which will be discussed in detail below. At 6.4m from the entrance, the tunnel divides into a narrow left passage and wider right passage (Figure 3a). After 1.6m, both passages join together (Figure 3b), forming a chamber 2.5 × 2.8m, which, turning to the right at almost a right angle, becomes a low belly-crawl passage. This narrow passage forms a natural border between the well-lit and ventilated entrance area and dark cave interior that is known only to a few people.

A meager flow of water wets the floor of the entrance area, causing moderate humidity that lowers in the hot daytime hours. In contrast, the enclosure behind the belly-crawl passage is constantly wet. Already in the passage, moving is quite a wet undertaking – one must pass through into a pool of water to enter into a low but wide gallery, with the ceiling completely covered by water drops that fall down on a regular basis (Figure 4a). The floor of this enclosure is wet and slippery; at the back, there is a shallow pool (Figure 4b). Remarkably, even in the vicinity of the entrance area, there are no prominent traces of human occupation. Perhaps the high humidity simplifies decomposition of any organic material, with the residues being washed away quite quickly. The natural light is visible only right after the belly crawl passage; a couple meters ahead it becomes pitch dark, even taking the option to wait for 15 minutes required for full adaptation of the eyes to the darkness. Due to this, it is quite surprising to read that “Como prueba de la excelente vista de los antiguos quedan

Figure 2. Plan of Ana O Keke made by the author, with close-up of the entrance area and adjacent enclosure.

en las paredes de la cueva Ana o Keke... los vestigios de trabajos hechas con “*huki*”, hasta el mismo final de la cueva...” [as proof of the excellent eyesight of the ancient [people], the walls of Ana o Keke ... [contain] the vestiges of work [tool marks] made with *huki*, up to the very end of the cave...] (Englert 1948:207). This quotation will be discussed in more detail below. It should be said, however, that despite the fact that the cave was visited in the Austral spring-summer, the considerable humidity in the enclosure makes a prolonged stay quite uncomfortable, even in a warm season. Following the enclosure there is a 3m long passage that requires belly crawling to pass through, along a slightly ascending slope. After a turn to the right, there is an area as spacious as the cave entrance.

The cave has a secondary tunnel going upward, which eventually becomes too narrow to pass through. Beyond the branching point, it is possible to move comfortably in the main cave route in a slightly bent posture. The ambience here is less wet than in the enclosure right after the entrance area, yet the floor remains slippery. On the cave floor one can see some basaltic fragments (polished or rounded by the sea) that beyond a doubt were brought in by humans. Further

ahead, one finds a remarkable basaltic block split vertically into two parts (Figure 5a), with numerous fragments of limonite connected solidly to the floor. The main obstacle in the cave, located some 254m from the cave entrance according to Lloret i Prieto, is where the passage becomes quite narrow, going down with the walls so saturated with humidity that no safe grip or support is possible. At the time of the author’s visit, the passage was full of water, yet it was possible to see an arched ceiling some 20cm above the water surface that suggested the continuation of a lava tube in an ascending manner (Figure 5b). The water-filled area is shaped as a siphon. According to Lloret i Prieto (pers. comm., 2008), this point is located 21.4m above the cave entrance. As the level of water did not permit further advancement, the detailed study of the published reports completed the picture of the cave beyond that point. A useful reference was a personal e-mail from Jordi Lloret i Prieto received on April 10, 2008, providing a more detailed description than that appearing in the expedition reports:

“Nosaltres vam entrar només amb els frontals
perque suposabem que seria una explo i topo

Figure 3. Photographic record of the entrance area: a) looking into the cave and b) looking towards the entrance from the point where two sub-tunnels merge. Arrows mark the location of the petroglyph panel.

Figure 4. Photographic record of the enclosure: a) general view and b) shallow water pool.

molt ràpides. Vaig tenir molts problemes amb la bruiola. Prenia un azimuth, el tornaba a prendre i em donaba un numero totalment diferent. Semblaba que la bruiola s'havia tornat boja. Va ser l'únic lloc a Pasqua on van tenir aquest problemes. Això va fer que la topo s'allargués molt i per manca de llum només vam recórrer i topografiar 274 metres amb 22 de desnivell ascendent. No vam trobar cap sífó. A uns 254 metres de la boca vam trobar una gatera estreta pero curta, lleugerament descendent i després ascendent, amb el terra del punt més fondo ocupat per un basal d'aigua d'uns 10 centímetres de fondària. Es el punt "o" de la nostra topo, a +21,4 metres de desnivell sobre la boca. Només et mullaves el pit i les cames pero es pasaba molt be (un pel estret).

Jo diria que això es el que vosté anomena "sífó". Es molt possible que en epoques de pluja aquesta gatereta sifoni durant un parell de metres. Aquest punt podria coincidir amb els 180 metres que vosté va mesurar aproximadament. Vau tenir mala sort al trobarla inundada. Segur que el més habitual es

trobar-ho eixut, com ho varen trobar nosaltres. Tractant-se d'una cavitat ascendent es molt difícil que hagi després algun altre sífó."

[We entered only with frontal lamps, thinking that it would be possible to complete explo[r]ation and topo[graphy] very quickly. I had many problems with the compass, with bearing values changing from reading to reading. It seemed as if the compass went crazy. It was the only place on Easter [Island] where we had these problems. This made the topo[graphy] expand considerably, and, due to the scarcity of light, we only explored and recorded 274 m with 22 [m] ascending [in relation to the entrance area]. No siphon was found. At 254 m from the entrance we found a narrow but short belly passage, climbing gently down and then up, with the floor in the deepest part filled with a puddle of water some 10 cm deep. This is the point 'O' of our topo[graphy], at +21.4 m above the level of the entrance. You only get your chest and feet wet, but it was possible to pass through quite easily.

Figure 5. Photographic record of the features deeper in the cave: a) basaltic block split in half and b) flooded siphon area.

I would say that this is what you call a 'siphon'. It is quite possible that in the rainy season this small belly-crawl passage acts as a siphon for a couple of meters. This point may coincide with the 180 m approximately measured by you. You had bad luck to have it water-filled. It is certain that normally it should be dry, as we found it. Concerning the ascending cavity, it is quite difficult that further there could be some other siphon.]

This description matches a brief note by Englert (1948:233): "Hay un trecho de unos 5 metros de largo que es muy angosto y que no tiene más de 30 centímetro de altura, de modo que es necesario arrastrarse por el suelo para poder avanzar. Es precisamente una de las partes con lagunas de agua." [There is a passage some 5 meters long that is very narrow and does not have more than 30 centimeters of height, in the way so that it is necessary to crawl to move forward. It is precisely one of the parts with pools of water.]

Carlier et al. (1985:8) provide a description of the same passage with considerable water fill, labeling it a "wetting vault" (*voûte mouillante*): "the passage narrows and lowers just to 0.50 m. The slope lowering by 0.80 m brings us to the entrance of a flooded passage. The passage is not completely filled, the depth of the water does not exceed 0.50 m and [leaving] 0.10 m for the air, [making] the passage almost aquatic." With this detail, the difficulties observed by the author upon reaching a descending passage almost completely full of water became clear. Possibly, exploring the cave in a drier year will make it possible to pass the siphon area without trouble.

Several reports provide descriptions of the very end of the cave, starting with Heyerdahl (1977:64):

"At last the cave ended in a smooth, steep earth slope which led up to a hole in the roof. After much

helpless slithering I managed to scratch my way up and came into a little, bell-shaped dome, which had all the appearance of being made by man. But it was only an old gas bubble. Father Sebastián had left a candle stump here."

Lloret i Prieto mentioned that they did not look for or find any type of archaeological remains in the cave. Following Heyerdahl's brief comment (1977:63) about human remains discovered in the cave, Carlier et al. (1985:7) reported finding two human incisors near the branching point of the cave. They provide the most complete description on how the cave ends:

"La galerie s'élargit [. . .] en direction de l'Ouest et prend une pente positive de 45° sur 3,00m. [. . .] Une petite salle hémisphérique constitue l'extrémité pénétrable de la cavité, à 404m de l'entrée. Son diamètre est de 2,00m pour une hauteur équivalente.

Au pied de la pente ont été découverts un *toki* en obsidienne et un percuteur. Le pourtour et la voûte de la salle terminale portent de nombreuses traces de coup d'outil. Les auteurs de ce travail ont voulu soit aggrandir [*sic*] la salle, soit tenter de percer le fond du tunnel constitué d'une lave tendre, afin de créer un second accès à l'air libre. Une relevé précis par rapport à la surface n'a pas été effectué, mais celle-ci ne devrait pas être très éloignée." (Carlier et al. 1985:9).

[The gallery continues ... westward making a ramp with positive inclination of 45° for 3.00m ... a small hemispheric hall constitutes the penetrable extremity of the cave, 404m from the entrance. Its diameter is 2.00m by the equal height. At the base of the ramp an obsidian *toki* and a hammer stone were found. The perimeter and the ceiling of the final hall have numerous tool mark traces.

The authors of that work wanted to make the hall larger, and attempted to pierce the back side of the tunnel constituted by fragile lava, aiming to create a secondary access to the outside. The exact measurement at the surface [level] has not been made, but it should be not very far.]

Keeping the restricted conditions of the terminal hall of Ana O Keke in mind, the attempted project is really astonishing. With relation to aiming to make a second access to the cave (and thinking with modern-day technological solutions) it would be more productive to “project” the hall on the surface, digging to the desired point from outside. However, in the time of the *neru* rites, the only possible solution was to try hacking through the walls of a petrified gas bubble from inside, bringing in burning torches through the water-filled siphon area, possibly with bare centimeters of air passage. Working in a closed room with a burning torch (also consuming oxygen) was complicated, yet the islanders seemingly made an attempt to breach the wall of the terminal hall. It would be remarkable if they could have succeeded in this unusual task.

The Petroglyphs of Ana O Keke

Easter Island is quite remarkable for its huge corpus of rock art, numbering thousands of petroglyphs (Lee 1992:4). The motifs can be isolated or form elaborate compositions covering entire lava panels, executed with great care and industriousness. Despite the existence of numerous prominent rock art sites, the petroglyphs of Ana O Keke are special. They do not appear as a mere collection of isolated designs, but rather as a carefully thought-out composition, a kind of graphic narrative with logical development. Even more remarkably, some of the motifs appearing in Ana O Keke are unique on the island. The inverse is also true: out of numerous designs that are common to other parts of the island, none appear in Ana O Keke. The petroglyphs cover the inner surface of the lava tube on the right from the entrance (Figure 6). The extent of carved area is about 4.35m long and 1.0-1.2m tall. Some carvings are located a mere 20cm above the cave floor. The motifs carved closer to the entrance suffered more from erosion. The carvings appearing at a distance from the entrance are mostly in a good state of preservation. The selective chalking of designs observed during the 2002 visit washed away by 2007, fortunately without any visible negative consequences to the original carvings. The author did not find any more petroglyphs deeper in the cave. Also, it was impossible to confirm Pflücke's comment (1990:115) about dozens of Make-Make carvings in the cave; perhaps he confused Ana O Keke with Ana Nga Heu.

From a visual study, it seems that the petroglyph-bearing surface is not relatively hard, allowing the carvings to be made by incision, scraping, or abrasion. It was impossible to discern the traces of pecking, which, however, cannot be excluded. The tools required for this work could have been manufactured out of hard rocks abundant on Easter Island: basalts, xenoliths, and obsidians, which were used to produce chisels for different stone-working tasks, including the carving of megalithic *moai*.

In the panel of Ana O Keke one can see both realistic images of beings or objects, as well as abstract/geometric forms. Among the realistic images it is imperative to name depictions of plants (Figure 6J), birds (Figure 6N), and fishes (Figure 6S), as well as stylized outrigger canoes (Figure 6T & U), pectorals (*rei miro*) (which alternatively can be interpreted as a schematic depiction of lunar crescent, Figure 6Q). The transverse chisels (*huki* in Polynesian) appear only at a single site at Rano Kau (Lee 1992:115) in addition to Ana O Keke (Figure 6G & H). An impressive anthropomorphic motif at Ana O Keke depicting a graceful being (Figure 6K) is unique; the use of double outlines to depict a human being is recorded at two other sites (Lee 1992:54), yet the general composition of the carving is different. Abstract geometric signs at Ana O Keke include an oval (Figure 6A) and a cross (Figure 6B), as well as a tally of cupules running along the entire panel. Interestingly, only after the present documentation was it possible to decipher Englert's sketch (Figure 7) and confirm that he had also seen the oval shape in the very beginning of the panel, which was overlooked by Carlier et al. (1985:10) and Lee (1992:47). This omission is completely natural because the petroglyph in question is located on the part of the wall staying in a shadow from the light entering the cave, and to see it, an additional lighting source is necessary. Despite the fact that the Polish speleological team mapped the entire cave and seemingly recorded the petroglyphs, their book (Ciszewski et al. 2010) does not present any trace of the entire panel.

It is remarkable that the petroglyphs of Ana O Keke include signs that are unique or extremely rare in Rapa Nui rock art (Figure 6E & F, as well as 6L). On the other hand, this carving panel lacks motifs that are abundant island-wide: the vulva (*komari*), the face mask of the creator god Make-Make, the birdman (*tangata manu*), or the boat-shaped house foundation (*hare paenga*). The lack of birdman petroglyphs and *komari* presumably suggests that the carving on the panel was done before the birdman ceremony was established, which matches well the folklore data saying that at those times, the Poike Peninsula was populated by *hanau eepe*.

PETROGLYPHS OF ANA O KEKE

- True carving contours
- Possible carving contours
- Uncertain/natural contours

Figure 6. Petroglyph panel of Ana O Keke with the corresponding tracings. The letters designate motifs discussed in the text.

Figure 7. Part of the tracing of Ana O Keke made by Englert (adapted after Englert 1948:234), showing the elliptic motif at the left side of the panel (marked with an arrow).

Alternatively, Ana O Keke's petroglyphs can be studied from a utilitarian point of view. If the *neru* had to spend a certain amount of time inside the cave, could it be that the tallies of cupules represent a kind of calendar, marking the duration of their stay or the length of the initiation rite, or representing certain phases of the initiation ritual? Could it be that some of the petroglyphs are related to individual *neru*, being their emblems or recording their names?

Ana More Mata Puku Cave

Only a few are aware of the existence of Ana More Mata Puku, and almost nobody knows its exact location or has visited it. Without an experienced guide, any attempt to find this cave would be a reckless enterprise and would most likely fail. The cave is very difficult to reach and the route is especially perilous, requiring good physical shape and agility. The descent to the cave starts from Maunga Parehe, going down some 120m of the sheer cliff. At the bottom, it is necessary to walk along the shoreline, on top of slippery boulders disappearing under crashing surf (Figure 1).

Englert (1948:236) was the first who mentioned the cave and made a sketch of its petroglyphs:

"La otra cueva "*Ana heu neru*" llamada también "*Ana More Mata Puku*"... es una cueva de forma rectangular de 7 m. de largo por 3,50 de ancho. Tiene 1,30 m. de altura y el cielo raso está formado

por roca lisa y plana. Hay en ella algunos petroglifos de hechura más tosca. La figura principal parece ser una embarcación Antigua que llamaban "*vaka vaero*" y que tiene tres palitos verticales."

[The other cave "*Ana hue neru*" also called "*Ana More Mata Puku*" ... is a rectangular cave 7 m long by 3.50 [m] wide. It has a height of 1.30 m and the ceiling is formed by a smooth and flat rock. There are some petroglyphs of rougher making. The principal motif seems to be an ancient vessel called "*vaka vaero*" that has three vertical poles].

Spanish speleologists J. Lloret i Prieto and M. Ubach i Tarrés visited Ana More Mata Puku on July 15, 1992, accompanied by Tito Teave and for the first time recorded the plan of the cave (Lloret i Prieto & Ubach i Tarrés 1996:22). The Polish speleological team worked on the island from 2001-2008, and they compiled an exhaustive inventory of 315 caves on the island (of around 1000 in total). They mentioned Ana More Mata Puku in their expedition reports (Ciszewski et al. 2010:40), but they did not visit this cave. The source of their information was Englert's book (1948:236).

On February 5, 2012, the author visited the cave accompanied by local guide Tito Teave and park ranger Sergio Manuheuroa Teave. Detailed photographs and measurements of the cave's interior were made. The entrance to Ana More Mata Puku is located 50-60m westward and 80m below Ana O Keke. The entrance,

Figure 8. The entrance of Ana More Mata Puku.

some 10m above the shoreline, is a narrow slit at the base of a vertical wall (Figure 8). It measures about 6m wide and is not visible up to the moment when one stands just in front of it. Perhaps this geological formation provides a clue for the translation of the cave's name. "Ana" is the Rapanui word for a cave. Using Englert's dictionary, one finds that "more" means wound (Englert 1948:473), which may be an allusion to a narrow entrance that looks like a wound cut on the cliff.

The entrance to the cave is further obstructed by fallen rocks. Only at its right side is a narrow passage less than a meter wide and some 60cm high. The interior of the cave looks trapezium-shaped in plan and has an area of 24m² (Figure 9). However, it provides a spacious impression. The average length between the entrance and the back wall of the cave is 6.25m. At the entrance, the width is 6m; half-way into the cave it is 3.4m and at the back wall it is slightly less than that. With the height of about 1.3-1.5m, it is possible to walk around Ana More Mata Puku in a slightly bent posture without any problem. There is enough space for lodging several people.

The walls of the cave are notably eroded and crumbling, clearly softer than the surrounding rock, and present horizontal stratification. The ceiling is unique – a solid rock slab covering the entire enclosure

Figure 9. Plan of Ana More Mata Puku made by the author.

Figure 10. Photographs of cave interior showing: a) linear arrangement of *poro* boulders and b) the entrance and flat ceiling slab. The locations of petroglyphs are marked with arrows.

(Figure 10a, b). Only a few small stalactites have formed on its surface. Out of 50 caves known to the author on Easter Island and Motu Nui, this almost perfectly flat slab is unique. There is a wide crack some 10cm high and up to a meter deep between the walls and the ceiling slab, offering a suitable place for keeping small objects or provisions. In view of these observations, it is possible to hypothesize that the cave probably formed by dissolution of a softer rock layer sandwiched between harder volcanic stone. The floor of the cave is covered with a fine soil that is soft and partially pulverized. The entrance area is covered by fine-grained sand-like material, possibly deposited due to erosion. Despite its close proximity to the sea, the cave is dry and well-ventilated, with pleasant fresh air. In general, Ana More Mata Puku provides a more comfortable space for a temporary residence in comparison to Ana O Keke, but there is no drinking water source nearby. At the back side of the cave, several division lines are made with rounded beach cobbles, or *poro* (Figure 10a). The rows form a right angle, delimiting an “interior space” of 4m² with a ceiling height of 1.5m, a comfortable space for camping or resting.

The Petroglyphs of Ana More Mata Puku

The carvings of Ana More Mata Puku are located on the right wall if looking from the entrance, almost at the back of the cave (Figure 10a). The rock is not suitable for carving as it is soft and fragile, breaking under the chisel irregularly and crumbling away in large chunks. These geological properties in part explain the inferior carving quality of Ana More Mata Puku’s petroglyphs in connection with those of Ana O Keke. The “ship with three masts” documented here by Englert (1948:232) is still visible today, but it is different in detail to that depicted by Englert. The ship

carving is 85cm wide and 32cm tall. Under the hull of the ship one can see a triangular formation, which looks similar to the vulva petroglyphs. It is unclear if this structure is of natural origin or it was made by humans (Figure 11a).

Considering the ship petroglyph as a realistic carving, it is imperative to address the fundamental publications by Barthel (1962) and Lee (1992) that present detailed discussion on ship motifs in Easter Island rock art. Barthel (1962:132) says that:

“Auch wir sind der Auffassung, daß die großen Segelschiffe des 18. Jahrhunderts, mit denen eine längere Zeit der Isolierung dramatisch beendet wurde, auf die Osterinsulaner wie ein Schock gewirkt haben dürften. [...] Von hier aus sind wohl auch die besprochenen Schiffspetroglyphen und -malereien als Zeugnisse eines Kulturschocks einzuordnen.”

[the large sailing ships of the 18th century, which definitely ended the prolonged period of the isolation, had to produce a considerable shock to the islanders ... From those times on, the petroglyphs and paintings with the boat-like shapes that were considered has to be catalogued as evidence of this culture shock.]

Be that as it may, these depictions document the enormous significance of the first contacts of the islanders with visitors from the outside world. Of the boat shapes recorded in the rock art of Easter Island, it is possible to distinguish two different types (Lee 1992:104-113): a) stylized Polynesian canoes of initial settlers; and b) ships with high masts and riggings, depicting European vessels that visited the island numerous times since the 18th century.

In the framework of classification proposed by Barthel and Lee, the petroglyphs in Ana More

Figure 11. Photographs and tracing of petroglyphs of Ana More Mata Puku: a) ship carving and b) geometric carvings.

Mata Puku can be identified as a ship of European construction, with high masts, an up-turned stern and possibly even a stern castle. If this is so, the islanders were well aware of the complete shape of a European ship, and not only the part visible above the waterline. Thus, the petroglyphs of Ana More Mata Puku may date to the second half of the 18th or the first half of the 19th century, that is, after the first European expeditions (Roggeveen, González, and Cook) and before the abolishment of the *neru* rites.

The rest of the petroglyphs in this cave are quite abstract and difficult to interpret. To the right of the ship motif, there is a shape measuring 22×36 cm (width and height, respectively). Including spurious contours to the left and a rounded detail by its top (both of which may be a part of the design), this petroglyph would be 29×47 cm (Figure 11a). With a considerable stretch of the imagination, one may see in it a stylized *moai* or a phallic shape (the latter would be an expected motif for the cave used for seclusion of the pubescent *neru* boys). Another isolated geometric figure measures 36×33 cm (Figure 11b); its left half looks like a part of a face with a single eye, yet the right part does not match, making this identification uncertain.

Conclusions

The *neru* cult of the white virgins has attracted considerable scientific attention. The author explored the caves that were used, according to lore, for seclusion of the adolescent *neru*: Ana O Keke and Ana More Mata Puku. During several visits, the caves were studied in detail, mapping the areas with the petroglyphs and carefully observing the individual petroglyphs. Remarkably, many of the motifs appearing in Ana O Keke are very rare in Easter Island rock art, while the most common petroglyphs of the late part of the island's history – *tangata manu*, *komari* and Make-Make face masks – do not appear in this cave. This singularity may suggest that activities in the cave preceded the establishment of the birdman ceremonies. The realistic petroglyph in Ana More Mata Puku most likely represents a European ship.

Ana O Keke, despite its remote location, remains somewhat vulnerable. However, after the prohibition to visit Poike with four-wheel drive vehicles, this cave became a mystic and solitary place, as it always had been. Due to complicated access, Ana More Mata Puku is more safely protected from vandalism, but the progressing erosion endangers the rock art in both

caves. Thus, it is imperative to conduct new research projects focused on Ana O Keke and Ana More Mata Puku, including detailed 3D documentation of the petroglyphs related to the *neru* rites.

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